

112TH CONGRESS
1ST SESSION

S. 383

To promote the domestic production of critical minerals and materials, and
for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 17, 2011

Mr. UDALL of Colorado introduced the following bill; which was read twice
and referred to the Committee on Energy and Natural Resources

A BILL

To promote the domestic production of critical minerals and
materials, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Critical Minerals and
5 Materials Promotion Act of 2011”.

6 **SEC. 2. DEFINITION OF CRITICAL MINERALS AND MATE-**
7 **RIALS.**

8 In this Act:

9 (1) IN GENERAL.—The term “critical minerals
10 and materials” means naturally occurring, nonliving,

1 nonfuel substances with a definite chemical composi-
2 tion—

3 (A) that perform an essential function for
4 which no satisfactory substitutes exist; and

5 (B) the supply of which has a high prob-
6 ability of becoming restricted, leading to phys-
7 ical unavailability or excessive costs for the ap-
8 plicable minerals and materials in key applica-
9 tions.

10 (2) EXCLUSIONS.—The term “critical minerals
11 and materials” does not include ice, water, or snow.

12 **SEC. 3. PROGRAM TO DETERMINE PRESENCE OF AND FU-**
13 **TURE NEEDS FOR CRITICAL MINERALS AND**
14 **MATERIALS.**

15 (a) IN GENERAL.—The Secretary of the Interior, act-
16 ing through the United States Geological Survey, shall es-
17 tablish a research and development program—

18 (1) to provide data and scientific analyses for
19 research on, and assessments of the potential for,
20 undiscovered and discovered resources of critical
21 minerals and materials in the United States and
22 other countries; and

23 (2) to analyze and assess current and future
24 critical minerals and materials supply chains—

1 (A) with advice from the Energy Informa-
2 tion Administration on future energy technology
3 market penetration; and

4 (B) using the Mineral Commodity Sum-
5 maries produced by the United States Geologi-
6 cal Survey.

7 (b) GLOBAL SUPPLY CHAIN.—The Secretary shall, if
8 appropriate, cooperate with international partners to en-
9 sure that the program established under subsection (a)
10 provides analyses of the global supply chain of critical
11 minerals and materials.

12 **SEC. 4. PROGRAM TO STRENGTHEN THE DOMESTIC CRIT-**
13 **ICAL MINERALS AND MATERIALS SUPPLY**
14 **CHAIN FOR CLEAN ENERGY TECHNOLOGIES.**

15 The Secretary of Energy shall conduct a program of
16 research, development, and demonstration to strengthen
17 the domestic critical minerals and materials supply chain
18 for clean energy technologies and to ensure the long-term,
19 secure, and sustainable supply of critical minerals and ma-
20 terials sufficient to strengthen the national security of the
21 United States and meet the clean energy production needs
22 of the United States, including—

23 (1) critical minerals and materials production,
24 processing, and refining;

- 1 (2) minimization of critical minerals and mate-
- 2 rials in energy technologies;
- 3 (3) recycling of critical minerals and materials;
- 4 and
- 5 (4) substitutes for critical minerals and mate-
- 6 rials in energy technologies.

7 **SEC. 5. STRENGTHENING EDUCATION AND TRAINING IN**
8 **MINERAL AND MATERIAL SCIENCE AND ENGI-**
9 **NEERING FOR CRITICAL MINERALS AND MA-**
10 **TERIALS PRODUCTION.**

11 (a) IN GENERAL.—The Secretary of Energy shall
12 promote the development of the critical minerals and ma-
13 terials industry workforce in the United States.

14 (b) SUPPORT.—In carrying out subsection (a), the
15 Secretary shall support—

- 16 (1) critical minerals and materials education by
- 17 providing undergraduate and graduate scholarships
- 18 and fellowships at institutions of higher education,
- 19 including technical and community colleges;
- 20 (2) partnerships between industry and institu-
- 21 tions of higher education, including technical and
- 22 community colleges, to provide onsite job training;
- 23 and
- 24 (3) development of courses and curricula on
- 25 critical minerals and materials.

1 **SEC. 6. SUPPLY OF CRITICAL MINERALS AND MATERIALS.**

2 (a) **POLICY.**—It is the policy of the United States to
3 promote an adequate and stable supply of critical minerals
4 and materials necessary to maintain national security, eco-
5 nomic well-being, and industrial production with appro-
6 priate attention to a long-term balance between resource
7 production, energy use, a healthy environment, natural re-
8 sources conservation, and social needs.

9 (b) **IMPLEMENTATION.**—To implement the policy de-
10 scribed in subsection (a), the President, acting through
11 the Executive Office of the President, shall—

12 (1) coordinate the actions of applicable Federal
13 agencies;

14 (2) identify critical minerals and materials
15 needs and establish early warning systems for crit-
16 ical minerals and materials supply problems;

17 (3) establish a mechanism for the coordination
18 and evaluation of Federal critical minerals and ma-
19 terials programs, including programs involving re-
20 search and development, in a manner that com-
21 plements related efforts carried out by the private
22 sector and other domestic and international agencies
23 and organizations;

24 (4) promote and encourage private enterprise in
25 the development of economically sound and stable

1 domestic critical minerals and materials supply
2 chains;

3 (5) promote and encourage the recycling of crit-
4 ical minerals and materials, taking into account the
5 logistics, economic viability, environmental sustain-
6 ability, and research and development needs for
7 completing the recycling process;

8 (6) assess the need for and make recommenda-
9 tions concerning the availability and adequacy of the
10 supply of technically trained personnel necessary for
11 critical minerals and materials research, develop-
12 ment, extraction, and industrial practice, with a par-
13 ticular focus on the problem of attracting and main-
14 taining high-quality professionals for maintaining an
15 adequate supply of critical minerals and materials;
16 and

17 (7) report to Congress on activities and findings
18 under this subsection.

19 **SEC. 7. AUTHORIZATION OF APPROPRIATIONS.**

20 There are authorized to be appropriated to carry out
21 this Act such sums as are necessary.

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